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Review: The relationships among multiplicities of a J-self-adjoint differential operator's eigenvalue

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The relationships among multiplicities of a J-self-adjoint differential operator's eigenvalue. (English summary)

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Various relationships between the algebraic, geometric, and analytic multiplicities of an eigenvalue of differential operators are discussed. In particular, it is shown that these three multiplicities coincide for the eigenvalues of a wide class of J-self-adjoint differential operators (a closed, densely defined linear operator T on a complex Hilbert space X is called *J-symmetric* if $T \subseteq JT^*J$ and *J-self-adjoint* if $T = JT^*J$).

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